013275 - Peninsula Beach (East Beach) and Vicinity

Contributed by Alex Hernandez
Tuesday, 05 December 2006

Description:
The study area is located along the Pacific Ocean just west of the entrance to Alamitos Bay and north of the Long Beach Breakwater. The study area is in the City of Long Beach, which is about 40 kilometers (25 miles) southeast of downtown Los Angeles. The study area is approximately 1.3 kilometers in length and extends from the west jetty of the entrance to Alamitos Bay to about 55th Place.

Peninsula Beach (East Beach) is characteristically narrow and experiences bouts of periodically high erosion; however, smaller erosion rates are more common. Recently, when the beach width equals or is less than 12 meters, the City renourishes Peninsula Beach with sand from the beach westward.

Backing the beach are about 93 ocean-front homes that are protected by a timber bulkhead and boardwalk, built in 1927. The bulkhead extends from along nearly the entire study area from Balboa to 68th Place. The photographs below show the timber bulkhead in 1940 and 1943, respectively.

Typically the base of the homes and structures on the south side of the Peninsula are at higher elevations than the homes and structures on the north side. Therefore, any wave overtopping the bulkhead has the tendency to run to the bay, as opposed to returning to the ocean.

At the eastern limit of the study area is a lifeguard facility and parking lot which provides beach access to beach users. North of the parking lot is the Alamitos Bay Yacht Club. The Peninsula is primarily residential and has few commercial establishments.

The beach offers two benefits. It offers protection to the homeowners from relatively frequent storm events and provides a recreational opportunity to the public. The public’s recreational activities include volleyball, running, jogging, sun bathing, swimming, surfing, etc. The beach is annually nourished in front of the bulkhead to a minimum width of about 12 meters. Typically, the narrowest portion of the beach is between 60th and 68th Place. In 1994, the beach width varied from about 124 meters at 56th Place to 40 meters at 65th Place to 55 meters at 68th Place.

The beach is susceptible to wave attack primarily from storms originating to the south or southwest. Occasionally, the waves break on the shore and run up the beach and overtop the bulkhead, soaking the boardwalk and other landscaping. During significant storm events, waves overflow the parking lot at 72nd Place, allowing water to flow across the parking lot and down Ocean Boulevard, ending in a pond near 65th Place. Standing water remains until the tide recedes. Storm drains back up because they drain directly to Alamitos Bay, which is influenced by tides.

Study Purpose:
The purpose of this study is to investigate shoreline protection and coastal storm damage reduction opportunities at Peninsula Beach, Long Beach, Calif. The existing protective beach is experiencing severe erosion that is exposing residential and commercial properties valued at over $200M. The average rate of erosion is estimated to be 3 to 9 meters per year along the 30-meter-wide beach, and winter storms could cause shoreline erosion of 15 to 46 meters along this area and result in damage to back-shore development. During the 1983 storms, the 53 meter protective beach was breached, resulting in waves overtopping a seawall and causing damage to development.

Summary:
The City of Long Beach currently maintains a protective beach at Peninsula Beach by backpassing sediments. However, the City has declared to the Corps that the City cannot count on being able to fund continual backpassing operations due to other demands for funding and the inconsistency in the Tidelands revenue stream. Failure to continue to backpass sediments will result in erosion of the beach to the 1920 vintage timber bulkhead currently protecting the residents of Peninsula Beach against wave attack and inundation.

The Reconnaissance Phase was completed in April 1997. The Project Management Plan was completed in June 2001. The City of Long Beach signed the Feasibility Cost Sharing Agreement in January 2002. The F2 milestone for the feasibility study was completed on Nov. 13, 2002.

The feasibility study continued in FY’03 with some reprogrammed funding. However, during the last two years, the primary factor that has impacted the Peninsula Beach (East Beach) schedule and budget has been the lack of optimal Federal appropriations. Also, since FY’03, there have been significant changes to the existing conditions at Peninsula Beach including, but not limited to, the following: 1) Over the past two years, the City has experimented with temporary sand bag groins at various “hot spot” locations that has helped to slow down the erosion rate at Peninsula Beach; and 2) the City has received half of the funding required to purchase equipment to continue the backpassing operation into the future, providing the potential to use in-house labor to accomplish the operation instead of contracting out the work, as has been done for past operations. The funding source was the Department of Boating and Waterways (DBAW). Based upon discussion with the City, it is our understanding that the City will receive the other half of the funding this year.

These conditions make it unlikely that a Federal construction project could be justified. The parties propose to revise the study to look at three conceptual alternatives and produce a technical report (hereinafter referred to as an “abbreviated F3 report”) summarizing the results.

An Executive Management Committee meeting was convened on March 20, 2006. For the Peninsula Beach (East Beach) Feasibility Study, the Executive Committee consists of Daniel Sulzer, Los Angeles District Corps of Engineers, Acting Chief, Planning Division; Phil Hester, City of Long Beach, Director of Parks, Recreation and Marine, and Dennis Eschen, City of Long Beach, Manager of Planning and Development Bureau.

The Memorandum for Record, which resulted from the March 20, 2006 Executive Committee Meeting, was approved and executed by both the COE and the City of Long Beach in mid-May 2006. The PDT commenced work on an abbreviated F3 scope on June 8, 2006.

Background Information:
Over the last 100 years, there has been significant construction near the study area that has changed the coastal processes. In 1910, the San Pedro Breakwater construction was completed. In 1927, the Peninsula Beach Bulkhead was built for added storm protection. The middle, detached and Long Beach breakwaters were completed in 1942 and 1949, respectively. The Alamitos Bay Marina Jetty was substantially expanded in 1954 with the construction of the Marina. The 1939 jetty ended at the end of the beach, approximately adjacent to the lifeguard building. The seaward extension in the 1950's substantially expanded the protection of the beach from southern approaching waves.

Peninsula Beach has continually experienced erosion since it was developed as a residential community. Major nourishment projects in the 1930's with the dredging of Alamitos Bay and in the 1950's with the construction of the Alamitos Bay Marina, have recreated a beach, but not a stable one. Stability has increased with the construction of the Long Beach Breakwater section in 1949, and with the extension of the Alamitos Bay Marina Jetty in the 1950's, but has not been achieved. One force working against stability has been an approximately two foot subsidence of the sea floor due to oil recovery activities between the 1920's and 1950's. Since 1980, the City of Long Beach has periodically nourished the beach to maintain a minimum beach width of 1.7 meters (35 feet) along the bulkhead and 12.2 meters (40 feet) near the lifeguard facility and parking lot at 72nd Place (Moffatt & Nichol, April 1993).

History:
There are a number of existing Federal projects that have been completed in and around the Peninsula Beach area. One of these, the Los Angeles and Long Beach Breakwaters, was constructed by the Corps. The western-most portion of this breakwater is the San Pedro section, which was started in 1889 and completed in 1910. The San Pedro section extends about 3400 meters. The middle breakwater was built between 1932 and 1942 and has a total length of 5,640 meters. The final portion of the Los Angeles and Long Beach breakwaters is the Long Beach portion, which was constructed between 1943 and 1949.
- Dennis & Peter Gadds’ paper (3MB PDF)

Map:

Photos:

- Historical Photos (3MB PDF)
- Site Visit - March 20, 2006 (8.2MB PDF)

- Site Visit - June 16, 2003 (5.6MB PDF)

Movie Clips: (Google Earth Media File 2.30MB WMV)
{mgmediabot}http://www.spl.usace.army.mil/cms/files/projects/peninsulabeach/peninsulamovie.wmv|false(Peninsula

Beach)|320|280{/mgmediabot}

Stakeholders:
Congressional Interest:

Jane Harman –D (CA 36)
2321 E. Rosecrans Blvd., Suite 3270
El Segundo, CA 90245
(310) 643-3636 – fax (310) 643-6445

Linda Sanchez –D (CA-39)
4007 Paramount, Suite 106
Lakewood, CA 90712
(562) 429-8499 – fax (562) 938-1948

Local Sponsor(s):

Mr. Dennis Eschen,
Director, Parks and Recreation & Marine
City of Long Beach
2760 Studebaker Road
Long Beach, CA 90815-1697
(562) 570-3130 – fax (562) 570-3119

News Releases: N/A

News Articles:
Army Corps Starts Study Of Erosion On Peninsula - Grunion Gazette, May 16, 1996
High Tides, Winds Swamp Peninsula - July 11, 1996
Money Found To Start Work On Bike Path - Grunion Gazette, July 10, 1997
New Options Studied For Peninsula Beach - Grunion Gazette, June 12, 1997
Next Step Is A Dandy
Public Hearing Notice Ad 1
Public Hearing Notice Ad 2

Related Links: N/A

Technical Documents/Presentations:
F2 Presentation: Peninsula_Beach_F2_PA_Version.ppt (6.22MB PPT)
F2 Public Scoping Meeting - 11/07/2002 (725KB PDF)
Public Hearing 1 - 01/31/2000 (505KB PDF)
Public Hearing 2 - 02/03/2000 (2.15MB PDF)

Points of Contacts:

Ehsan Eshraghi, Project Manager
U.S. Army Corps of Engineers, Los Angeles District
915 Wilshire Boulevard (CESPL-PM)
Los Angeles, CA 90017
ehsan.j.eshraghi@usace.army.mil
(213) 452-4013

Alex Hernandez, Study Manager/Planner
U.S. Army Corps of Engineers, Los Angeles District
915 Wilshire Boulevard (CESPL-PD-C)
Los Angeles, CA 90017
alejandro.hernandez@usace.army.mil
(213) 452-3835 – fax (213) 452-4204

Greg Fuderer, Public Affairs Specialist
U.S. Army Corps of Engineers, Los Angeles District
915 Wilshire Boulevard (CESPL-PA)
Los Angeles, CA 90017
gregory.a.fuderer@usace.army.mil

(213) 452-3923 – fax (213) 452-4209